

The Industry Association of Building and Property Inspectors in WA – Inspect WA		
Position Paper 01.2019 Delignification of Tile Battens		
Subject	Delignification of Tile Battens – Impact on the structural integrity of a residential property when inspected and reported on within the context of a Pre Purchase Building Inspection conducted within the terms of AS 4349.1	
Association Position	Delignification of tile battens alone is not considered to be a major structural defect within the terms of a structural defect within the context of a Pre Purchase Building Inspection conducted within the terms of AS 4349.1 and as such within the ordinary course of pre purchase building inspections should not be reported as such.	
Date Preparation Commenced	July 2019	
Date Approved by Committee		
Approved for Public Release		
Why was the Paper Released	Concerns within the Association were raised that the delignification of tile battens was being listed as a major structural defect by some WA Building Inspectors	
Key Definitions	Tile batten	These are light timbers placed across rafters to which tiles are nail or fasted to be kept in place.
	Delignification	Delignification (Chemical Delignification) damage is most commonly found in timber sections used as roof tile battens of buildings that are located in close proximity to the sea, large chemical factories or major arterial roads that have heavy traffic.  This term describes the deterioration of the lignin in timber which is damaged by airborne chemicals. Lignin is the natural glue that holds the fibres of wood together and is, therefore, a major component of any wood. When the lignin is broken down or damaged the fibres then detach from each other creating a visible hairy surface to a section of the timber, as the delignification progresses the structure of the timber section is weakened and therefore Chemical Delignification is regarded as a structural pest of timber in service.
	Major Defect AS 4391.1	A defect of sufficient magnitude where rectification has to be carried out in order to avoid unsafe conditions, loss of utility or further deterioration of the property.
	Structural element AS 4349.1	Physically distinguishable part of a structure. NOTE: For example wall, columns, beam, connection
	Structural Defect as defined by REIWA	"Structural Defects" means a fault or deviation from the intended structural performance of a building element and is a major defect to the building structure of sufficient

	Australian Standard pre-purchase structural inspection condition	magnitude where rectification has to be carried out in order to avoid unsafe conditions, loss of utility, or further deterioration of the building structure. Structural defects do not include any non-structural element, e.g., roof plumbing and roof covering, general gas, water and sanitary plumbing, electrical wiring, partition walls, cabinetry, windows, doors, trims, fencing, minor structures, non-structural damp issues, ceiling linings, floor coverings, decorative finishes such as plastering, painting, tiling etc, general maintenance, or spalling of masonry, fretting or mortar rusting.
	Scope of Inspection AS 4349.1 Appendix A Pre Purchase Structural Inspection	<p><b>A3 SCOPE OF INSPECTION</b></p> <p>The inspection shall comprise visual assessment of accessible areas of the property to identify major defects to the building structure and to form an opinion regarding the general condition of the structure of the property</p> <p>NOTE: The structural report should not contain any assessment or an opinion regarding the following:</p> <p>(a) <b>Any non-structural element</b>, e.g., roof plumbing and roof covering, general gas, water and sanitary plumbing, electrical wiring, partition walls, cabinetry, windows, doors, trims, fencing, minor structures, non-structural damp issues, ceiling linings, floor coverings, decorative finishes such as plastering, painting, tiling, etc.</p>
	Safety hazard AS 4349.1	The report shall identify any observed item that may constitute a present or imminent serious safety hazard.
Key Conclusions	<ol style="list-style-type: none"> <li>1. Tile battens irrespective of the condition are not major structural elements</li> <li>2. Roof covering and ceilings are non-structural elements</li> <li>3. Roof frames are structural elements but the existence of tile battens do not impact on the structural integrity of the roof frame.</li> <li>4. Delignification of tiles battens should not be report as a major structural defect</li> </ol>	
Additional Observations	<ol style="list-style-type: none"> <li>1. In its worst case significant delignification within a property could be a major defect but not a major structural defect</li> <li>2. Delignification can represent a safety hazard where the extent of the delignification where passage on the roof cover is considered to be a safety hazard</li> <li>2.3.</li> </ol>	
Additional Notes	<p><u>ABEL Inspections.</u></p> <p><u>What happens when severe delignification affects rafters or other structural timbers as well as the tile batons? Do we then submit this as being a structural defect? Or would the terminology be major defect to the tile batons and structural defect to the rafters etc?</u></p>	

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**Comment [DCHW1]:** Hi Arthur This paper only deals with Roof Tile battens. If a rafter is no longer structurally sound then the inspector needs to call it as a major structural defect. If the battens are defective, the inspector can call them a major defect.

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Signed Chairman

The Industry Association of Building and Property Inspectors in WA – Inspect WA

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